

VZCZCXYZ0018
PP RUEHWEB

DE RUEHSG #2551/01 3462023
ZNR UUUUU ZZH
P 122023Z DEC 06
FM AMEMBASSY SANTIAGO
TO RUEHC/SECSTATE WASHDC PRIORITY 0533
INFO RUEHBR/AMEMBASSY BRASILIA PRIORITY 3416
RUEHBU/AMEMBASSY BUENOS AIRES PRIORITY 0004
RUEHCV/AMEMBASSY CARACAS PRIORITY 1199
RUEHLP/AMEMBASSY LA PAZ DEC 4928
RUEHPE/AMEMBASSY LIMA PRIORITY 4838
RUEHRI/AMCONSUL RIO DE JANEIRO PRIORITY 0349
RUEHSO/AMCONSUL SAO PAULO PRIORITY 0591
RUEABND/DEA LOS ANGELES DIVISION PRIORITY
RUEKJCS/SECDEF WASHDC PRIORITY
RUCPDOG/DEPT OF COMMERCE WASHDC PRIORITY

UNCLAS SANTIAGO 002551

SIPDIS

SIPDIS

DEPARTMENT FOR STAS ATKINSON
FOR WHA/BSC - MOSS
FOR OES/STC
DEPT PASS TO NSF - HAROLD STOLBERG

E.O. 12958: N/A
TAGS: [OEXC](#) [OSCI](#) [SCUL](#) [TSPL](#) [OVIP](#) [CI](#)
SUBJECT: STAS ATKINSON VISIT HIGHLIGHTS CHILEAN S&T
STRENGTHS

REF: A. BUENOS AIRES 2537
[1](#)B. BUENOS AIRES 2580

[1](#)1. Summary. Science and Technology Adviser to the Secretary of State (STAS) Dr. George Atkinson led a delegation of scientists and engineers to Chile November 4-7, to survey Chilean science and technology (S&T) and engineering institutions and learn about Chile's future S&T priorities. The visit also highlighted Chilean educational capabilities and afforded an opportunity to vet a STAS proposal for a new modality of collaboration with U.S. universities -- "Global Science Partnerships for the 21st Century" (GSP-21). Before arriving in Santiago, the STAS delegation also visited the Cerro Tololo and Cerro Pachon observatories in northern Chile. In Santiago, Atkinson participated in a seminar on international S&T collaboration and innovation at the American Academy of Science and Technology. The visit confirmed that Chile has solid capabilities in many S&T and engineering fields and generated Chilean enthusiasm for the GSP-21 concept. End Summary.

[1](#)2. STAS Atkinson's delegation included Deputy S&T Adviser Andrew Reynolds, WHA/EPSC Jefferson Science Fellow Dr. Kim Boyer, DOS Geographer Dr. Lee Schwartz, former Jefferson Science Fellow Dr. Ed Samulski, AAAS Fellow Dr. Christina McCain (STAS Office), cancer researcher Nathan Singh (University of Pennsylvania), and Dr. Cung Vu from the DOD's Defense Warning Office.

[1](#)3. The STAS visit's prime objective was to determine Chile's national S&T and engineering priorities. The STAS visit should help Chilean proponents of scientific progress, as well as overcome complacency. President Bachelet believes that S&T education and infrastructure, English language training, and a culture of innovation must be fostered for Chile to compete in the 21st century.

Priorities and Capabilities

[1](#)4. Meetings with Chilean counterparts identified natural resource development and exploitation as current priorities. These included energy, value-added services and commodities

from the mining industry, developing Chile as a world food power,⁸ sustainable exploitation of forest resources, and biotechnology. Chile has some world-class scientific and technical research going on in these fields. The delegation visited public and private research and education institutions, which provide quality instruction and perform solid research in many S&T, engineering and math disciplines.

With limited resources and a new emphasis on innovation, Chile has recently begun to pay more attention to fostering its science and engineering communities. It seeks a multi-disciplinary framework to focus on advancing the national and industrial needs in the energy, mining, agriculture, forestry, and health sectors. Some Chilean innovators are also nurturing cutting edge research in areas such as bioinformatics, genomics, and proteomics with an eye towards increasing national competitiveness. STAS Atkinson and his team also noted how Chile's framework for fostering further advances could represent a model for regional leadership for research and development in the advanced sciences.

15. The STAS delegation visited two major faculties at the University of Chile. At the Department of Electrical Engineering, they observed demonstrations in robotics, visual identification systems, and renewable energy. In the Center for Mathematical Modeling (CMM), they heard a presentation on the modeling of biological agents for use in more efficient, environmentally benign copper extraction from marginal ores. The CMM's focus is on short and medium-term projects, which helps maintain a funding stream. The delegation also made stops at the Center for Bioinformatics and Genome Biology at Fundacion Ciencia Para La Vida, a public-private technology park, and Pontifica Universidad Catolica's (PUC) Center for Genomics and Bioinformatics and the Center for Advanced

Studies in Ecology and Biodiversity.

16. Researchers at the Fundacion Cienca presented their work in bioinformatics for improved agricultural production, including wine grapes, frost- and drought-tolerant genetically engineered plants, and the sequencing of several plant pathogens supporting the development of controls. The Fundacion's focus is almost entirely on problems of immediate concern to Chile's agriculture and aquaculture sectors, as well as bio-leaching for copper extraction. At PUC, the delegation saw presentations on several topics in proteomics, including the modeling of stochastic surface charge distribution, protein folding, and docking. The concentration at PUC was on problems of slightly longer term, as is reasonable for a university based research activity in a developing country. All three institutions (University of Chile, Fundacion, PUC) demonstrated a sophisticated research capability.

17. Before arriving in Santiago, the STAS delegation visited the Cerro Tololo and Cerro Pachon observatories in northern Chile. The team was enormously impressed with these world class facilities and their directors, as well as the scientists working there from around the world. STAS and Dr. Samulski were pleased to hear about research being conducted in partnership with the Universities of Arizona and North Carolina, where they know the departments of astronomy well. The team noted, however, that Chileans are serving principally as facility technicians with few Chilean astronomers doing research on-site.

Global Science Partnerships

18. STAS Atkinson briefed the Ambassador about the GSP-21 concept to gauge likely Chilean interest. The Ambassador was enthusiastic about the idea and has recommended the Department consider Chile as a pilot country should GSP-21 move forward. In all meetings with Chilean counterparts)- at universities, research institutions, and ministries -- there was a great deal of interest in the GSP-21 concept. Chilean scientists said they especially wanted support in transforming their basic research into creative products and

services. Senior EconOff has also been approached subsequently by members of the GOC's Council on Competition and Innovation seeking further information on the possibility of scientific exchanges under GSP-21.

The Policy Side

¶9. The STAS delegation also met with MFA's Ambassador Gabriel Rodriguez, Director of Energy, Science and Technology & Innovation; Dr. Jorge Allende, Vice Rector for Research & Development at the University of Chile; Carlos Alvarez, Executive Vice President of the Chilean Economic Development Agency (CORFO); David Noe Scheinwald, Advisor at the Ministry of Finance; and, Vivian Heyl, President of CONICYT, the Chilean analog to our National Science Foundation. The GOC's policymakers were particularly interested in formal collaboration and exchanges to facilitate technology transfers. Dr. Allende noted the importance to Chile of a University of California-University of Chile alliance from the 1960's that had led in no small measure to the development of Chile's vibrant agricultural sector.

Science Public Diplomacy

¶10. On November 6, Atkinson joined the Ambassador in a presentation on "Science and Technology in the Modern World" at an American Corner in Santiago appropriately named the American Academy of Science and Technology. Post established the Academy in September 2005 at the University of Talca's Santiago campus, to provide a forum for highlighting U.S.-Chilean scientific cooperation. The program also featured CONICYT President Heyl and Dr. Servet Martinez,

President of the Chilean Academy of Sciences. Atkinson stressed the need for scientists worldwide to collaborate to face the pressing problems of the 21st century.

¶11. Positive press coverage of Atkinson's presentation appeared in Santiago's major dailies and an interview with El Mercurio appeared in a feature article in the Sunday, November 19 edition. STAS Atkinson's visit helped highlight the extensive U.S.-Chile scientific and technological cooperation, an area of the bilateral relationship that often escapes even GOC policymakers.

Embassy Comment

¶12. Post was very pleased with the good will generated by the STAS visit, and would strongly support Chile as a partner in the GSP-21 program. The U.S. and Chile already enjoy a solid Fulbright exchange program and GSP-21 could be a logical complement to it. The GOC is becoming increasingly aware of the role S&T and innovation must play for Chile to compete economically and foster non-traditional sectors. The GOC is attempting to identify clusters of innovative sectors and technologies to promote. Part of that plan is to send up to 1,000 graduate students abroad annually for graduate degrees.

Here too, a GSP-21 initiative could be a very timely vehicle. Post will continue to report on commission's work and other new GOC attempts to develop clear policies on S&T, education and research and hopefully intellectual property rights as national priorities.

¶13. STAS Atkinson cleared this cable.
KELLY